

## Program

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### International Young Scientists School «Artificial Intelligence & Cybersecurity»

25–28 November 2025, Stavropol, Russia

Participant registration:

<https://forms.yandex.ru/u/68fe72d790fa7b7f56cf824c>

Join in a browser:

<https://salutejazz.ru/calls/i05mu2?psw=OBBTEQQCEEdbAFQHWxYHVFQKSQ>

**Join by meeting code:** Conference code: i05mu2@salutejazz.ru • Password: c1tvfu12

All times are Moscow Time (GMT+3).

Please connect 30 minutes before the start to test your system.

#### 25 November 2025

**09:00** – Evolution of neural network architectures: from Perceptron to GPT

Marina A. Rudenko, PhD (Eng.), Head, Center for Artificial Intelligence and Big Data Analytics, V.I. Vernadsky Crimean Federal University, Simferopol.

**10:30** – Deepfake technologies as a threat to information security

Elena A. Maksimova, DSc (Eng.), Head, Department of Intelligent Systems of Information Security, MIREA — Russian Technological University, Moscow.

**12:00** – Principles and methods for end-to-end development of AI systems

Marina A. Rudenko, PhD (Eng.), Head, Center for AI & Big Data Analytics, V.I. Vernadsky Crimean Federal University, Simferopol.

**14:00** – Mathematical foundations of modern fully homomorphic encryption

Maxim A. Deryabin, PhD (Eng.), Researcher, Samsung Advanced Institute of Technology (SAIT), Suwon, Republic of Korea.

**15:30** – Classification of homomorphic encryption schemes and key operations

Maxim A. Deryabin, PhD (Eng.), Researcher, SAIT, Suwon, Republic of Korea.

**17:00** – Security of AI systems

Pavel S. Lozhnikov, DSc (Eng.), Vice-Rector for Research and Innovation, Omsk State Technical University, Omsk.

## **26 November 2025**

**09:00** – Applying AI methods to assess speech quality in speech rehabilitation

Evgeny Y. Kostyuchenko, PhD (Eng.), Head, Research & Engineering Center “Intelligent Systems of Trusted Interaction,” Tomsk State University of Control Systems and Radioelectronics (TUSUR), Tomsk.

**10:30** – AI as a tool for creating and countering deepfakes

Elena A. Maksimova, DSc (Eng.), Head, Department of Intelligent Systems of Information Security, MIREA – Russian Technological University, Moscow.

**12:30** – Cyber security challenges in education

Prakasha G. S., Christ University, Bangalore, India.

**14:00** – Traditional AI vs Generative AI: A paradigm shift

Namita Mittal, Associate Professor, Department of Computer Science and Engineering, MNIT, Jaipur, India.

**16:30** – Introduction to cryptanalysis. Cryptanalysis of symmetric encryption algorithms

Evgeniya A. Ishchukova, PhD (Eng.), Associate Professor, Southern Federal University, Taganrog.

**18:00** – The role of AI in interdisciplinary research at the intersection of science and art

Irina A. Ivanova, PhD (Eng.), Associate Professor, Head of the Department “Digital Data Processing Technologies,” MIREA – Russian Technological University, Moscow.

## **27 November 2025**

**09:00** – Cryptanalysis of asymmetric encryption algorithms

Evgeniya A. Ishchukova, PhD (Eng.), Associate Professor, Southern Federal University, Taganrog.

**10:30** – Methodology for classifying information security threats

Anton A. Konev, PhD (Eng.), Deputy Director, Institute of Systems Integration and Security, TUSUR, Tomsk.

**14:00** – Information security challenges in digital transformation and AI-driven business processes

Vyacheslav V. Zolotarev, PhD (Eng.), Head, Department of Information Technology Security, Reshetnev Siberian State University of Science and Technology, Krasnoyarsk.

**16:00** – AI-based methods and approaches for anomaly detection

Nina I. Romancheva, PhD (Eng.), Dean, Faculty of Applied Mathematics and Computer Science, Moscow State Technical University of Civil Aviation (MSTUCA), Moscow.

## **28 November 2025**

**09:00** – Cybersecurity: from theory to practice – attack scenarios for cyber-physical systems

Elena S. Basan, PhD (Eng.), Associate Professor, Southern Federal University, Taganrog.

**10:30** – Applying AI in the development of information protection tools

Elena S. Basan, PhD (Eng.), Associate Professor, Southern Federal University, Taganrog.

## **12:00 – Applying AI to network traffic analysis for information security tasks**

Alexander S. Getman, PhD (Phys.–Math.), Senior Researcher, Ivannikov Institute for System Programming, Moscow.

### **Speakers**

- Iskandar M. Azhmukhamedov, DSc (Eng.), Professor, Department of Information Security, Astrakhan State University, Astrakhan.
- Elena S. Basan, PhD (Eng.), Associate Professor, Southern Federal University, Taganrog.
- Alexander S. Getman, PhD (Phys.–Math.), Senior Researcher, Ivannikov Institute for System Programming.
- Maxim A. Deryabin, PhD (Eng.), Researcher, Samsung Advanced Institute of Technology (SAIT), Suwon, Republic of Korea.
- Vyacheslav V. Zolotarev, PhD (Eng.), Head, Department of Information Technology Security, Reshetnev Siberian State University of Science and Technology, Krasnoyarsk.
- Irina A. Ivanova, PhD (Eng.), Associate Professor, Head of Department “Digital Data Processing Technologies,” MIREA — Russian Technological University, Moscow.
- Evgeniya A. Ishchukova, PhD (Eng.), Associate Professor, Southern Federal University, Taganrog.
- Anton A. Konev, PhD (Eng.), Deputy Director, Institute of Systems Integration and Security, TUSUR, Tomsk.
- Evgeny Y. Kostyuchenko, PhD (Eng.), Head, Research & Engineering Center “Intelligent Systems of Trusted Interaction,” TUSUR, Tomsk.
- Pavel S. Lozhnikov, DSc (Eng.), Vice-Rector for Research and Innovation, Omsk State Technical University, Omsk.

- Elena A. Maksimova, DSc (Eng.), Head, Department of Intelligent Systems of Information Security, MIREA — Russian Technological University, Moscow.
- Namita Mittal, Associate Professor, Department of Computer Science and Engineering, MNIT, Jaipur, India.
- Prakasha G. S., Christ University, Bangalore, India.
- Nina I. Romancheva, PhD (Eng.), Dean, Faculty of Applied Mathematics and Computer Science, MSTUCA, Moscow.
- Marina A. Rudenko, PhD (Eng.), Head, Center for AI & Big Data Analytics, V.I. Vernadsky Crimean Federal University, Simferopol.